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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/048,077	05/30/2002	Peter Matthewson	FNL6318P0010US	6364
24628	7590	04/07/2004	EXAMINER	
WELSH & KATZ, LTD 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606			LEE, DIANE I	
			ART UNIT	PAPER NUMBER
			2876	

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/048,077	Applicant(s) MATTHEWSON, PETER	
	Examiner D. I. Lee	Art Unit 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/23/02.
 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☒ Claim(s) 1-22 and 24 is/are allowed.
 6) ☐ Claim(s) _____ is/are rejected.
 7) ☒ Claim(s) 23 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 03 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/23/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Receipt is acknowledged of the Preliminary Amendment filed 23 January 2002. Claims 3-5, 9-10, 14-15, 78-18, and 21-23 have been amended; and claim 24 has been newly added. Currently, claims 1-24 are pending in this application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

3. The disclosure is objected to because of the following informalities:
 - (a) Page 1, line 2: Insert --FIELD OF THE INVENTION--;
 - (b) Page 1, line 7: Insert --BACKGROUND OF THE INVENTION--;
 - (c) Page 1, line 21: Insert --SUMMARY OF THE INVENTION--;
 - (d) Page 3, line 21: Insert --DESCRIPTION OF THE DRAWINGS--; and
 - (e) Page 4, line 18: Insert --DESCRIPTION OF THE PREFERRED EMBODIMENTS--.

Appropriate correction is required.

Claim Objections

4. Claim 23 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits. Appropriate correction is required.

Allowable Subject Matter

5. Claims 1-22 and 24 are allowed.

6. The following is an examiner's statement of reasons for allowance:

Dames [WO 96/31790] discloses a method of decoding an information on a tag or marker comprising a plurality of magnetic elements on a tag supported by a substrate, wherein each magnetic elements are substantially the same width and wherein the relative position of the magnetic elements represents the information encoded by the information carrier. An interrogation signal is applied to the information so that each of the magnetic elements are subjected, in turn, to the interrogation signal and the responded signal of each of the magnetic elements are detected and process. The tag contains a number of zones of magnetic material placed along the axis of the label and each magnetic material passes through the zero-field region, and its presence and the positions of the magnetic element is detected. Thus, a representation of particular code sequence is obtained using the lengths and spacing of individual magnetic material.

Zocca [US 5,917,170] discloses a method of measuring the width of the current scanning and the following width of the bar code characters to calculate the acceleration is calculated, which is assumed to be constant, and also calculate the average velocity from a given equation. The average velocity is calculated from the scanning times required for the acquisition of the each characters and the widths of the characters.

Crossfield [WO 89/06810] teaches a method for detecting element formed of a ferromagnetic alloy having a high permeability and low coercivity for providing a characteristic magnetic response to an interrogating magnetic field and detecting a returned signal in accordance with the magnetic response of the magnetic element. The frequency of the detected response generated by the magnetic element is a harmonic of the interrogation signal.

Hirano et al. [US 5,650,236] discloses a magnetic marker having a low coercive force is subjected to an AC magnetic field and the disturbances in the magnetic field of a scan area or harmonic components of an output pulse from the magnetic field is detected. The magnetic marker having large Barkhausen characteristic, and sharp pulses generated on magnetization reversal can be detected from an AC magnetic field. This marker has the advantages of having a high sensitivity, a light weight and less erroneous detections. Hirano teaches that the characteristic of a large Barkhausen reversal that an output induced voltage accompanied by the magnetization inversion is constant irrespective of either the external magnetic field or a speed of change in magnetic field, and that a sharp pulse waveform having high harmonic components is present.

One of ordinary skill in the art would not have been motivated to modify the teachings of Dames, Zocca, Crossfiled, and Hirano in order to provide the specific decoding algorithm of the information carrier including the step of determine the relative positions of the magnetic element by estimating the relative velocity between the interrogation signal and each of the magnetic elements, as set forth in the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ely et al. [US 5,831,532], Zhou [US 5,029,291], Tyren et al. [US 5,001,458], Schrotte et al. [US 5,821,859], and Gambino et al. [US 5,831,532] discloses the characteristics of a carrier having a magnetic element when subjected to a magnetic field.

8. This application is in condition for allowance except for the following formal matters:

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See the Examiner's objections to the specification and the claim (i.e., claim 23) above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. I. Lee whose telephone number is (571) 272-2399. The examiner can normally be reached on Monday through Thursday from 5:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D. I. Lee
Primary Examiner
Art Unit 2876

D. L.